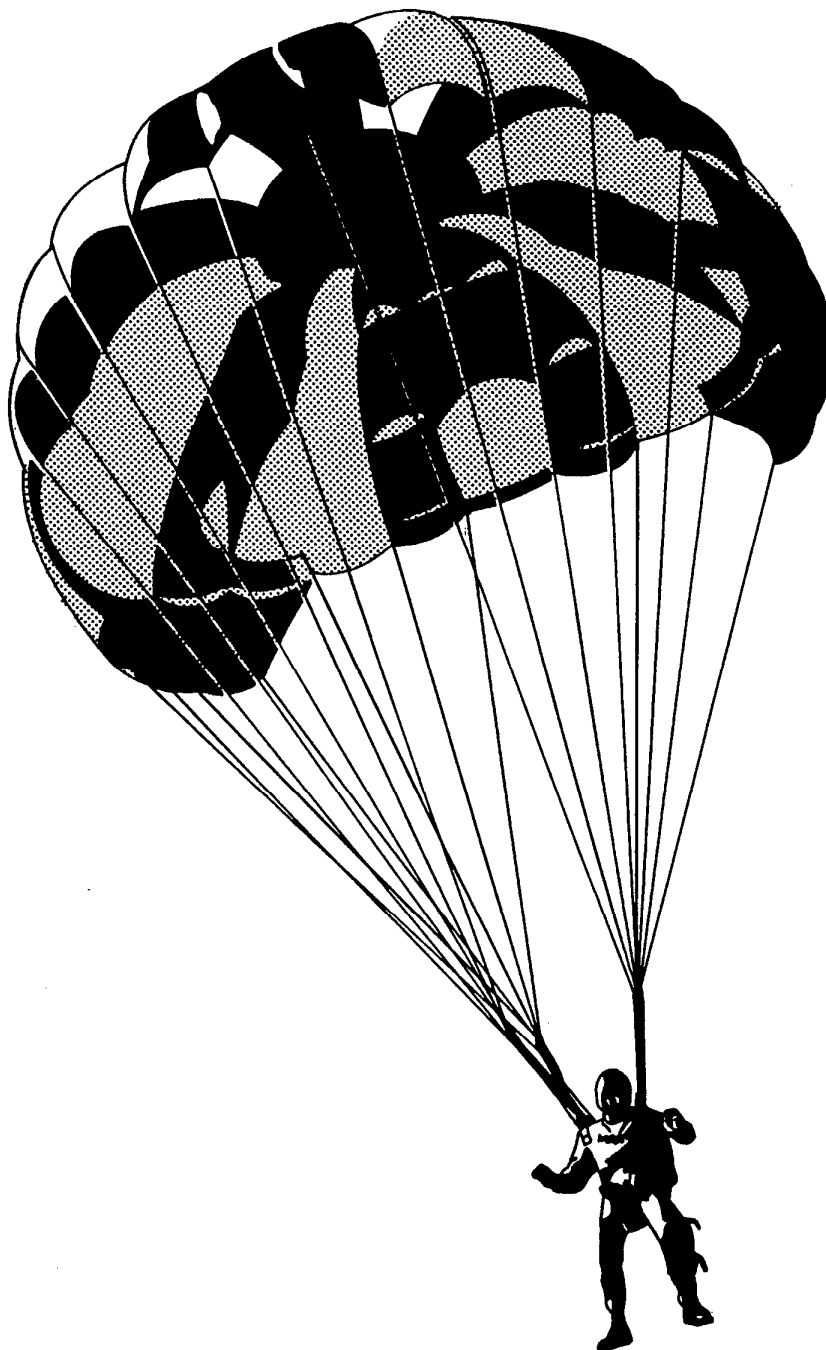


PARACHUTE RIGGER QUESTION BOOK

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3009. An applicant for a Master Parachute Rigger Certificate must have packed a minimum number of parachutes either as a senior rigger or under the supervision of which of the following?

- 1—Any certificated parachute rigger.
- 2—A person holding a currently effective parachute instructor's certificate.
- 3—A certificated parachute rigger who holds the appropriate ratings or a person holding an appropriate military rating.
- 4—A certificated master parachute rigger who also holds a currently effective parachute instructor's certificate.

3010. A senior parachute rigger, who had held a back type rating for 6 years, added seat and chest type ratings to the Senior Parachute Rigger Certificate on a given date. One month later, upon meeting the experience requirements for a master rigger, the senior rigger applied, was tested, and was issued a Master Parachute Rigger Certificate. For what type ratings is the master parachute rigger eligible?

- 1—Back, chest, and seat types.
- 2—Back type only.
- 3—Only the types for which he/she packed at least 100 parachutes and was tested for on the master rigger test.
- 4—Back type and either chest or seat types, depending upon the master rigger test.

3011. Which statement is correct in reference to the skill requirements for a Senior Parachute Rigger Certificate?

- 1—An applicant must demonstrate the ability to pack and maintain at least one type of parachute in common use.
- 2—An applicant must demonstrate the ability to pack and maintain two types of parachutes in common use.
- 3—An applicant who has a record of packing at least 20 parachutes of the type for which a rating is sought meets the skill requirements and is not required to take an oral and practical test.
- 4—An applicant who has a record of packing at least 100 parachutes of each of two types in common use meets the skill requirements and is not required to take an oral and practical test.

3012.

(1) The requirements for a Master Parachute Rigger Certificate specify that an applicant shall have had at least 5 years of experience as a certificated senior parachute rigger.

(2) If not the holder of a Senior Parachute Rigger Certificate, an applicant for a Master Parachute Rigger Certificate must pass a written test.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3013. Federal Aviation Regulations provide for the issuance of which type ratings for parachute riggers?

- 1—Seat, special purpose, back, and lap.
- 2—Chest, back, seat, and chair.
- 3—Lap, chest, chair, and cargo.
- 4—Back, lap, seat, and chest.

3014. In addition to other qualifications, which requirement must be met by a member of an Armed Force of the United States who applies for a Master Parachute Rigger Certificate, and is not the holder of a Senior Parachute Rigger Certificate?

- 1—Pass a written test and, in addition, pass an oral and practical test on at least two parachutes in common use for each rating sought.
- 2—Pass a written, oral, and practical test for each rating sought.
- 3—Pass a written test with respect to two types of parachutes in common use.
- 4—Present evidence to the FAA showing that he/she holds the equivalent military rating.

3015. What is the age requirement for an applicant to be eligible for a parachute rigger certificate?

- 1—At least 18 years of age.
- 2—At least 21 years of age.
- 3—At least 18 years of age for the Senior Parachute Rigger Certificate and at least 21 years of age for the Master Parachute Rigger Certificate.
- 4—There is no FAA requirement concerning age for the issuance of a parachute rigger certificate.

3016. Which statement is correct in reference to the test requirements for a Senior Parachute Rigger Certificate when the applicant is an eligible military rigger?

- 1—Pass a written, oral, and practical test.
- 2—Pass a written and practical test.
- 3—Pass an oral and practical test.
- 4—Pass a written test.

3017. If a certificated master parachute rigger applies for an additional type rating, how many (minimum) parachutes of the type for which he/she seeks a rating must he/she have packed?

- 1—20 parachutes.
- 2—100 parachutes.
- 3—50 parachutes.
- 4—There is no minimum number specified by regulation.

3018. What requirements must be met by an eligible member of an Armed Force of the United States who applies for a Senior Parachute Rigger Certificate?

- 1—Pass an oral and practical test for each rating sought.
- 2—Pass a written test with respect to Federal Aviation Regulations.
- 3—Present evidence to the FAA that he/she has packed at least 100 each military parachutes.
- 4—Pass a written test, and an oral and practical test for each rating sought.

3019. A certificated parachute rigger who applies for an additional type rating must pass

- 1—a written and practical test.
- 2—a written and oral test.
- 3—an oral and practical test.
- 4—a practical test.

3020. Which of the following is not a requirement for issuance of a Senior Parachute Rigger Certificate to an applicant who is a civilian employee (parachute rigger) of an Armed Force of the United States?

- 1—Be at least 18 years of age.
- 2—Show evidence of having packed satisfactorily at least 20 parachutes of each type for which he/she seeks a rating.
- 3—Pass an oral and practical test, to the satisfaction of the FAA Administrator, showing his/her ability to pack and maintain at least one type of parachute in common use.
- 4—Present satisfactory documentary evidence that he/she is a civilian employee (parachute rigger) of an Armed Force of the United States.

3021. A certificated senior parachute rigger who applies for an additional type rating must take which of the following tests?

- 1—Written test.
- 2—Practical test.
- 3—Written and practical tests.
- 4—Written, oral, and practical tests.

3022. A certificated master parachute rigger who applies for an additional type rating must pass which of the following?

- 1—A written and practical test for each type rating sought.
- 2—An oral and practical test for each type rating sought.
- 3—A practical test for each type rating sought.
- 4—A written test for each type rating sought.

3023. When a certificated senior parachute rigger applies for an additional type rating, how many parachutes must he/she have packed?

- 1—There is no minimum number specified by regulation.
- 2—At least 10 parachutes of each of 2 types in common use.
- 3—At least 20 parachutes of the type for which a rating is sought.
- 4—At least 100 parachutes of each of 2 types in common use.

3024. Select the correct statement regarding the privileges of a certificated parachute rigger.

- 1—When packing the main parachute of a single harness dual parachute pack to be used for intentional jumping, all packing operations shall be conducted in a certificated parachute loft rated for packing and general maintenance.
- 2—There are no regulatory requirements that must be followed when packing the auxiliary parachute of a single harness dual parachute pack to be used for intentional jumping.
- 3—A certificated parachute rigger shall conduct all packing operations in a certificated parachute loft.
- 4—When packing the main parachute of a single harness dual parachute pack to be used for intentional jumping, a certificated parachute rigger is not required to keep a record of the packing or to seal the pack.

3025. Which of the following repairs can be approved by a certificated senior parachute rigger?

- A. Replacing a grommet.
- B. Cleaning a stained harness.
- C. Replacing suspension lines.
- D. Arranging suspension lines in proper sequence on a separable link.
- E. Repairing a lateral band.
- F. Replacing an apex cap.

- 1—A, C, F.
- 2—B, C, E.
- 3—A, B, D.
- 4—E, D, F.

3026.

- (1) Worn or damaged harness webbing may be replaced by a certificated senior parachute rigger, providing he/she has the necessary equipment.
- (2) The replacement of a damaged suspension line is classified as a major repair.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3018. What requirements must be met by an eligible member of an Armed Force of the United States who applies for a Senior Parachute Rigger Certificate?

- 1—Pass an oral and practical test for each rating sought.
- 2—Pass a written test with respect to Federal Aviation Regulations.
- 3—Present evidence to the FAA that he/she has packed at least 100 each military parachutes.
- 4—Pass a written test, and an oral and practical test for each rating sought.

3019. A certificated parachute rigger who applies for an additional type rating must pass

- 1—a written and practical test.
- 2—a written and oral test.
- 3—an oral and practical test.
- 4—a practical test.

3020. Which of the following is not a requirement for issuance of a Senior Parachute Rigger Certificate to an applicant who is a civilian employee (parachute rigger) of an Armed Force of the United States?

- 1—Be at least 18 years of age.
- 2—Show evidence of having packed satisfactorily at least 20 parachutes of each type for which he/she seeks a rating.
- 3—Pass an oral and practical test, to the satisfaction of the FAA Administrator, showing his/her ability to pack and maintain at least one type of parachute in common use.
- 4—Present satisfactory documentary evidence that he/she is a civilian employee (parachute rigger) of an Armed Force of the United States.

3021. A certificated senior parachute rigger who applies for an additional type rating must take which of the following tests?

- 1—Written test.
- 2—Practical test.
- 3—Written and practical tests.
- 4—Written, oral, and practical tests.

3022. A certificated master parachute rigger who applies for an additional type rating must pass which of the following?

- 1—A written and practical test for each type rating sought.
- 2—An oral and practical test for each type rating sought.
- 3—A practical test for each type rating sought.
- 4—A written test for each type rating sought.

3023. When a certificated senior parachute rigger applies for an additional type rating, how many parachutes must he/she have packed?

- 1—There is no minimum number specified by regulation.
- 2—At least 10 parachutes of each of 2 types in common use.
- 3—At least 20 parachutes of the type for which a rating is sought.
- 4—At least 100 parachutes of each of 2 types in common use.

3024. Select the correct statement regarding the privileges of a certificated parachute rigger.

- 1—When packing the main parachute of a single harness dual parachute pack to be used for intentional jumping, all packing operations shall be conducted in a certificated parachute loft rated for packing and general maintenance.
- 2—There are no regulatory requirements that must be followed when packing the auxiliary parachute of a single harness dual parachute pack to be used for intentional jumping.
- 3—A certificated parachute rigger shall conduct all packing operations in a certificated parachute loft.
- 4—When packing the main parachute of a single harness dual parachute pack to be used for intentional jumping, a certificated parachute rigger is not required to keep a record of the packing or to seal the pack.

3025. Which of the following repairs can be approved by a certificated senior parachute rigger?

- A. Replacing a grommet.
- B. Cleaning a stained harness.
- C. Replacing suspension lines.
- D. Arranging suspension lines in proper sequence on a separable link.
- E. Repairing a lateral band.
- F. Replacing an apex cap.

- 1—A, C, F.
- 2—B, C, E.
- 3—A, B, D.
- 4—E, D, F.

3026.

- (1) Worn or damaged harness webbing may be replaced by a certificated senior parachute rigger, providing he/she has the necessary equipment.
- (2) The replacement of a damaged suspension line is classified as a major repair.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3035. According to FAR Part 65, which statement is an acceptable performance standard for senior parachute riggers?

- 1—Pack and alter any parachute if within the rigger's rating.
- 2—Perform duties under his/her certificate for at least 90 days within the preceding 12 months.
- 3—Pack a parachute using basic knowledge when the manufacturer's instruction is not handy.
- 4—Maintain packing records for a minimum of 1 year.

3036. Which of the following is a requirement a parachute rigger must meet in order to exercise the privileges of his/her certificate?

- 1—Performed duties under his/her certificate within the preceding 90 days.
- 2—Packed at least 20 parachutes within the preceding 90 days.
- 3—Has demonstrated to the FAA Administrator that he/she is able to perform those duties.
- 4—Satisfactorily packed not less than 100 parachutes within the preceding 12 months.

3037. A parachute rigger is required to present his/her certificate for inspection upon the request of

- 1—the owner of a parachute the rigger has packed.
- 2—any Federal, state, or local law enforcement officer.
- 3—a person holding a master parachute rigger rating.
- 4—a certificated pilot or flight instructor.

3038. Which of the following is privileged to perform alterations to the auxiliary canopy of a single harness dual parachute pack to be used for intentional jumping?

- 1—The owner of the parachute.
- 2—A certificated and appropriately rated master parachute rigger.
- 3—A certificated and appropriately rated senior parachute rigger.
- 4—A person holding the appropriate military parachute rigger rating.

3039.

(1) If a drop test is required to determine the serviceability of a canopy, a certificated senior parachute rigger may perform the drop test.

(2) A senior parachute rigger may replace pack opening elastic or spring bands.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3040.

(1) A senior parachute rigger may make minor harness repairs for the types of parachutes for which he/she is rated.

(2) A senior parachute rigger may alter the length of the bridle line that attaches the pilot chute to the canopy.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3041. From the list below, identify the repairs that cannot be approved by a senior parachute rigger.

- A. Place suspension lines in proper sequence on a removable connector link.
- B. Replace a damaged suspension line.
- C. Replace a canopy panel.
- D. Replace pack opening bands.
- E. Replace D-rings on the parachute harness.
- F. Replace pack cones or grommets.

- 1—A, C, F.
- 2—B, C, E.
- 3—A, B, D.
- 4—D, E, F.

3042. Many modern high-speed aircraft are equipped with drag chutes which are deployed upon landing to slow the aircraft. Which of the following may pack, rig, and approve for return to service this type parachute?

- 1—Any certificated parachute rigger.
- 2—A certificated mechanic with an airframe rating.
- 3—The pilot or owner of the aircraft.
- 4—A master parachute rigger.

3043. There are three Federal Aviation Regulations that the parachute rigger should be knowledgeable of. They are:

- 1—FAR Parts 63, 135, and 145.
- 2—FAR Parts 65, 105, and 149.
- 3—FAR Parts 63, 91, and 149.
- 4—FAR Parts 65, 91, and 147.

3035. According to FAR Part 65, which statement is an acceptable performance standard for senior parachute riggers?

- 1—Pack and alter any parachute if within the rigger's rating.
- 2—Perform duties under his/her certificate for at least 90 days within the preceding 12 months.
- 3—Pack a parachute using basic knowledge when the manufacturer's instruction is not handy.
- 4—Maintain packing records for a minimum of 1 year.

3036. Which of the following is a requirement a parachute rigger must meet in order to exercise the privileges of his/her certificate?

- 1—Performed duties under his/her certificate within the preceding 90 days.
- 2—Packed at least 20 parachutes within the preceding 90 days.
- 3—Has demonstrated to the FAA Administrator that he/she is able to perform those duties.
- 4—Satisfactorily packed not less than 100 parachutes within the preceding 12 months.

3037. A parachute rigger is required to present his/her certificate for inspection upon the request of

- 1—the owner of a parachute the rigger has packed.
- 2—any Federal, state, or local law enforcement officer.
- 3—a person holding a master parachute rigger rating.
- 4—a certificated pilot or flight instructor.

3038. Which of the following is privileged to perform alterations to the auxiliary canopy of a single harness dual parachute pack to be used for intentional jumping?

- 1—The owner of the parachute.
- 2—A certificated and appropriately rated master parachute rigger.
- 3—A certificated and appropriately rated senior parachute rigger.
- 4—A person holding the appropriate military parachute rigger rating.

3039.

(1) If a drop test is required to determine the serviceability of a canopy, a certificated senior parachute rigger may perform the drop test.

(2) A senior parachute rigger may replace pack opening elastic or spring bands.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3040.

(1) A senior parachute rigger may make minor harness repairs for the types of parachutes for which he/she is rated.

(2) A senior parachute rigger may alter the length of the bridle line that attaches the pilot chute to the canopy.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3041. From the list below, identify the repairs that cannot be approved by a senior parachute rigger.

- A. Place suspension lines in proper sequence on a removable connector link.
- B. Replace a damaged suspension line.
- C. Replace a canopy panel.
- D. Replace pack opening bands.
- E. Replace D-rings on the parachute harness.
- F. Replace pack cones or grommets.

- 1—A, C, F.
- 2—B, C, E.
- 3—A, B, D.
- 4—D, E, F.

3042. Many modern high-speed aircraft are equipped with drag chutes which are deployed upon landing to slow the aircraft. Which of the following may pack, rig, and approve for return to service this type parachute?

- 1—Any certificated parachute rigger.
- 2—A certificated mechanic with an airframe rating.
- 3—The pilot or owner of the aircraft.
- 4—A master parachute rigger.

3043. There are three Federal Aviation Regulations that the parachute rigger should be knowledgeable of. They are:

- 1—FAR Parts 63, 135, and 145.
- 2—FAR Parts 65, 105, and 149.
- 3—FAR Parts 63, 91, and 149.
- 4—FAR Parts 65, 91, and 147.

3052. If a parachute rigger has not performed duties under his/her certificate within the last 12 months, he/she must

- 1—practice packing at least 5 parachutes before packing one for use.
- 2—review the manufacturer's instructions prior to packing a parachute for use.
- 3—pack a parachute of the appropriate type under the supervision of a master parachute rigger before exercising the privileges of his/her certificate.
- 4—show the FAA Administrator that he/she is able to satisfactorily perform the duties for which he/she is rated.

3053. The FAA action to suspend or revoke a parachute rigger certificate may be based on

- (1) false statements on an application for an airman certificate or rating.
- (2) refusal to inspect, pack, and seal a parachute.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3054. How long must a parachute rigger retain a record of parachute packing, maintenance, and alterations?

- 1—For at least 2 years after the disposal of the parachute.
- 2—Until notified by the FAA inspector that he/she may dispose of them.
- 3—For at least 2 years after the date of record.
- 4—For at least 1 year after completion of the work.

3055. After packing a parachute, a rigger shall enter which of the following on the packing record attached to the parachute?

- 1—The date, the rigger's certificate number, and his/her seal symbol.
- 2—The rigger's certificate number and signature, the date and place of packing, and a notation of any defects found upon inspection.
- 3—The parachute retirement date, the packing date, and the rigger's signature.
- 4—The rigger's signature, the date, and the place of packing.

3056. An authorized person who performs alterations to one of the following is not required by regulation to keep a record of the alterations.

- 1—The main parachute of a single harness dual parachute pack.
- 2—The harness of a single harness dual parachute pack.
- 3—The auxiliary parachute of a single harness dual parachute pack.
- 4—The auxiliary parachute container of a single harness dual parachute pack.

3057. Regulations require each parachute rigger to keep a record of all packing, maintenance, and alterations performed or supervised. From the following, identify that which is not a required part of the record:

- 1—The date when and the place where the work was performed.
- 2—The parachute rigger's seal symbol.
- 3—The type, make, and serial number of the parachute.
- 4—The name and address of the parachute owner.

3058. A person who is authorized to perform alterations to parachutes must record which of the following alterations to a single harness dual parachute pack?

- A. The main parachute.
- B. The harness.
- C. The auxiliary parachute.
- D. The auxiliary parachute container.
- E. The main parachute container.

- 1—A, B, C.
- 2—B, C, D.
- 3—C, D, E.
- 4—D, E, A.

3059. Federal Aviation Regulations require a parachute rigger to keep a record of the packing, maintenance, and alteration performed or supervised by him/her. Identify the items required to be entered in the record.

- A. Retirement date of parachute.
- B. Date parachute was manufactured.
- C. Name and address of parachute owner.
- D. Type, make, and serial number of the parachute.
- E. Date when and place where the work was performed.

- 1—A, B, C.
- 2—B, C, D.
- 3—C, D, E.
- 4—D, E, A.

3052. If a parachute rigger has not performed duties under his/her certificate within the last 12 months, he/she must

- 1—practice packing at least 5 parachutes before packing one for use.
- 2—review the manufacturer's instructions prior to packing a parachute for use.
- 3—pack a parachute of the appropriate type under the supervision of a master parachute rigger before exercising the privileges of his/her certificate.
- 4—show the FAA Administrator that he/she is able to satisfactorily perform the duties for which he/she is rated.

3053. The FAA action to suspend or revoke a parachute rigger certificate may be based on

- (1) false statements on an application for an airman certificate or rating.
- (2) refusal to inspect, pack, and seal a parachute.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3054. How long must a parachute rigger retain a record of parachute packing, maintenance, and alterations?

- 1—For at least 2 years after the disposal of the parachute.
- 2—Until notified by the FAA inspector that he/she may dispose of them.
- 3—For at least 2 years after the date of record.
- 4—For at least 1 year after completion of the work.

3055. After packing a parachute, a rigger shall enter which of the following on the packing record attached to the parachute?

- 1—The date, the rigger's certificate number, and his/her seal symbol.
- 2—The rigger's certificate number and signature, the date and place of packing, and a notation of any defects found upon inspection.
- 3—The parachute retirement date, the packing date, and the rigger's signature.
- 4—The rigger's signature, the date, and the place of packing.

3056. An authorized person who performs alterations to one of the following is not required by regulation to keep a record of the alterations.

- 1—The main parachute of a single harness dual parachute pack.
- 2—The harness of a single harness dual parachute pack.
- 3—The auxiliary parachute of a single harness dual parachute pack.
- 4—The auxiliary parachute container of a single harness dual parachute pack.

3057. Regulations require each parachute rigger to keep a record of all packing, maintenance, and alterations performed or supervised. From the following, identify that which is not a required part of the record:

- 1—The date when and the place where the work was performed.
- 2—The parachute rigger's seal symbol.
- 3—The type, make, and serial number of the parachute.
- 4—The name and address of the parachute owner.

3058. A person who is authorized to perform alterations to parachutes must record which of the following alterations to a single harness dual parachute pack?

- A. The main parachute.
- B. The harness.
- C. The auxiliary parachute.
- D. The auxiliary parachute container.
- E. The main parachute container.

- 1—A, B, C.
- 2—B, C, D.
- 3—C, D, E.
- 4—D, E, A.

3059. Federal Aviation Regulations require a parachute rigger to keep a record of the packing, maintenance, and alteration performed or supervised by him/her. Identify the items required to be entered in the record.

- A. Retirement date of parachute.
- B. Date parachute was manufactured.
- C. Name and address of parachute owner.
- D. Type, make, and serial number of the parachute.
- E. Date when and place where the work was performed.

- 1—A, B, C.
- 2—B, C, D.
- 3—C, D, E.
- 4—D, E, A.

3069. Regulations require an authorized person who performs alterations to parachutes to keep a record of those alterations. Alterations to which of the following must be recorded?

- A. Main parachute of a single harness dual parachute pack.
- B. Harness of a single harness dual parachute pack.
- C. Auxiliary parachute of a single harness dual parachute pack.
- D. Auxiliary parachute container of a single harness dual parachute pack.
- E. Main parachute container of a single harness dual parachute pack.

- 1—A, B, C.
- 2—B, C, D.
- 3—C, D, E.
- 4—D, E, A.

3070. Identify those persons who may alter the main parachute of a single harness dual parachute pack.

- A. The manufacturer.
- B. The owner of the parachute.
- C. A senior parachute rigger.
- D. A master parachute rigger.
- E. A person holding an appropriate military rating.
- F. A parachute loft with the appropriate rating.

- 1—A, B, C.
- 2—B, D, E.
- 3—C, E, F.
- 4—A, D, F.

3071. Who may maintain or alter the main parachute of a single harness dual parachute pack to be used for intentional jumping?

- 1—The person who is to use the parachute.
- 2—An appropriately certificated parachute rigger.
- 3—A person holding an appropriate military parachute rigger rating.
- 4—The owner of the parachute.

3072. Which statement applies regarding the packing of the main parachute of a dual parachute pack when the parachute is to be used for intentional jumping?

- 1—The facilities and equipment, performance standards, records, and seal attachment requirements of FAR Part 65 do not apply in this situation.
- 2—The parachute rigger must have performed duties under his/her certificate for at least 90 days within the preceding 12 months.
- 3—The parachute rigger must perform the packing on a smooth-top table at least 3 feet wide by 40 feet long.
- 4—The parachute rigger shall maintain a record of each parachute packed for at least 2 years.

3073. Which of the following may pack, maintain, or alter the harness, auxiliary parachute, or auxiliary parachute container of a single harness dual parachute pack to be used for intentional jumping?

- 1—An appropriately certificated and type-rated parachute rigger.
- 2—Any certificated parachute rigger.
- 3—Any certificated parachute rigger or the person who is to use the parachute.
- 4—Any person associated with use of the parachute for intentional jumping.

3074. Who may pack the main parachute of a single harness dual parachute pack to be used for intentional jumping?

- 1—Only an appropriately certificated and type-rated parachute rigger.
- 2—Only an appropriately certificated parachute rigger.
- 3—Any person associated with use of the parachute for intentional jumping.
- 4—Any certificated parachute rigger or the person who is to use the parachute.

3075. In relation to a dual parachute pack used for intentional jumping, which of the following may be accomplished by the person who intends to use the parachute?

- 1—Packing the main parachute.
- 2—Packing, maintaining, or altering the main parachute.
- 3—Packing the main parachute or the auxiliary parachute.
- 4—Packing the auxiliary parachute.

3076. What Federal Aviation Regulation prescribes rules for intentional parachute jumping?

- 1—FAR Part 65.
- 2—FAR Part 91.
- 3—FAR Part 105.
- 4—FAR Part 149.

3077. Inspection of a parachute reveals a canopy section which shows evidence of weakness or damage. The parachute rigger conducting the inspection shall

- 1—pack the parachute, but withhold the record card.
- 2—pack the parachute in the normal manner, but place a rejection tag in a conspicuous location on the pack.
- 3—contact the local FAA inspector for disposition instructions.
- 4—refuse to pack the parachute.

3069. Regulations require an authorized person who performs alterations to parachutes to keep a record of those alterations. Alterations to which of the following must be recorded?

- A. Main parachute of a single harness dual parachute pack.
- B. Harness of a single harness dual parachute pack.
- C. Auxiliary parachute of a single harness dual parachute pack.
- D. Auxiliary parachute container of a single harness dual parachute pack.
- E. Main parachute container of a single harness dual parachute pack.

- 1—A, B, C.
- 2—B, C, D.
- 3—C, D, E.
- 4—D, E, A.

3070. Identify those persons who may alter the main parachute of a single harness dual parachute pack.

- A. The manufacturer.
- B. The owner of the parachute.
- C. A senior parachute rigger.
- D. A master parachute rigger.
- E. A person holding an appropriate military rating.
- F. A parachute loft with the appropriate rating.

- 1—A, B, C.
- 2—B, D, E.
- 3—C, E, F.
- 4—A, D, F.

3071. Who may maintain or alter the main parachute of a single harness dual parachute pack to be used for intentional jumping?

- 1—The person who is to use the parachute.
- 2—An appropriately certificated parachute rigger.
- 3—A person holding an appropriate military parachute rigger rating.
- 4—The owner of the parachute.

3072. Which statement applies regarding the packing of the main parachute of a dual parachute pack when the parachute is to be used for intentional jumping?

- 1—The facilities and equipment, performance standards, records, and seal attachment requirements of FAR Part 65 do not apply in this situation.
- 2—The parachute rigger must have performed duties under his/her certificate for at least 90 days within the preceding 12 months.
- 3—The parachute rigger must perform the packing on a smooth-top table at least 3 feet wide by 40 feet long.
- 4—The parachute rigger shall maintain a record of each parachute packed for at least 2 years.

3073. Which of the following may pack, maintain, or alter the harness, auxiliary parachute, or auxiliary parachute container of a single harness dual parachute pack to be used for intentional jumping?

- 1—An appropriately certificated and type-rated parachute rigger.
- 2—Any certificated parachute rigger.
- 3—Any certificated parachute rigger or the person who is to use the parachute.
- 4—Any person associated with use of the parachute for intentional jumping.

3074. Who may pack the main parachute of a single harness dual parachute pack to be used for intentional jumping?

- 1—Only an appropriately certificated and type-rated parachute rigger.
- 2—Only an appropriately certificated parachute rigger.
- 3—Any person associated with use of the parachute for intentional jumping.
- 4—Any certificated parachute rigger or the person who is to use the parachute.

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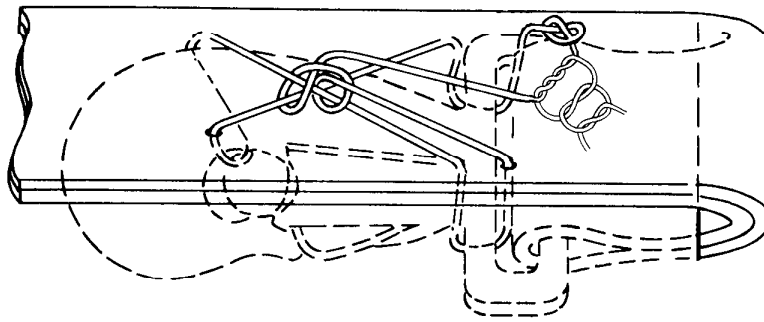


Figure 1

3091. The packing, maintaining, or altering of a parachute must be performed following the procedures

- 1—prescribed in FAR Part 65.
- 2—approved by the FAA Administrator or the parachute manufacturer.
- 3—outlined in appendix A of FAR Part 43.
- 4—contained in TSO-C23b.

3092. What method is used to determine the material airworthiness of the entire parachute assembly?

- 1—The number of times it has been used for jumping.
- 2—Drop tested by an appropriate facility.
- 3—The number of times it has been packed.
- 4—The total number of repairs.

3093.

(1) A satisfactory method of checking a stained area of a parachute canopy for deterioration is to gently push the finger into the fabric.

(2) When in doubt as to strength of a canopy, it is possible to determine its serviceability by submitting it to a drop test.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3094. During the inspection of a parachute canopy, an area is found where a number of warp yarns are not properly interlaced. This condition is best described as

- 1—a thin place.
- 2—undrawn yarn.
- 3—a smash.
- 4—a float.

3095. Which defect in parachute canopy material is characterized by an abruptly thickened place in the cloth or a bunch of lint caught in the yarn?

- 1—A smash.
- 2—A float.
- 3—Undrawn yarn.
- 4—A slub or strip back.

3096. Which of the following checks cannot be made after the parachute has been packed and sealed?

- 1—Condition of vent collar.
- 2—Condition of safety thread on ripcord locking pin.
- 3—Security of ripcord housing.
- 4—Fit of ripcord grip in pocket.

3097. If you receive a parachute for packing and find it is not airworthy, what steps should be taken?

- 1—Pack the parachute, place a 6-inch red "X" on the container, and notify the owner.
- 2—Notify local FAA officials and dispose of the parachute as advised.
- 3—Pack the parachute and notify the FAA Administrator of the condition.
- 4—Do not pack the parachute.

3098. A ripcord pin that is slightly bent is

- 1—cause for corrective action.
- 2—of little concern because the safety hazard is negligible.
- 3—desired for easier pack closing.
- 4—desired for easier pack opening.

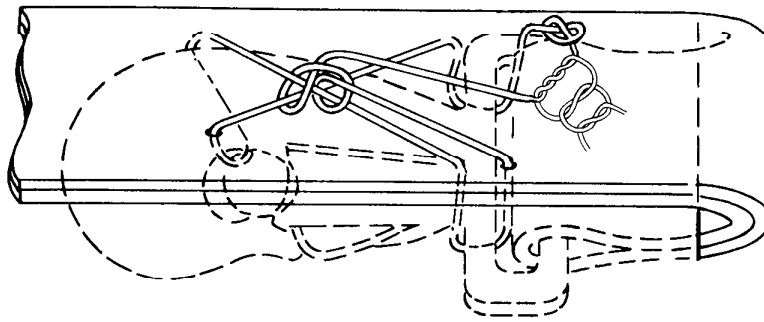


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3092. What method is used to determine the material airworthiness of the entire parachute assembly?

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- 3—The number of times it has been packed.
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- 3—desired for easier pack closing.
- 4—desired for easier pack opening.

3112. When the parachute canopy is packed, material is allowed to protrude over the pack edges in order to assure

- 1—the gores are straight in the pack.
- 2—the canopy is creased properly in the pack.
- 3—complete filling out of the pack.
- 4—tightness when closing the pack.

3113. The stowage location for the first bight of suspension lines is determined by

- 1—location of the ripcord.
- 2—TSO-C23b.
- 3—length of risers.
- 4—packing instructions.

3114. If both right and left groups of gores have been folded properly, how many gores cross the suspension lines?

- 1—None.
- 2—One.
- 3—Two.
- 4—Four.

3115. When one or more of the suspension lines pass over the top of the canopy during deployment, it is referred to as

- 1—a streamer.
- 2—an overfold.
- 3—a line over.
- 4—a partial inversion.

3116. A suspension line hook is used to

- 1—reposition the canopy.
- 2—lift web connector to suspension lines.
- 3—stow suspension lines.
- 4—push the suspension lines into container.

3117. What should be the position of the suspension lines during the canopy pleating process?

- 1—Raised about an inch above the table.
- 2—Raised to expose the inside of the canopy to the peak.
- 3—Held flat against the table with shot bags.
- 4—Held to one side and below the table level.

3118. What is used to hold the canopy and suspension lines in place during packing?

- 1—Shot bags.
- 2—Tension hooks.
- 3—Fids.
- 4—Packing paddles.

3119. Select the tool used to make the folds in the canopy and to smooth out the pack.

- 1—Shot bags.
- 2—Tension hooks.
- 3—Packing paddles.
- 4—Fids.

3120. A shot bag is placed over the suspension lines during the gore-folding process in order to

- 1—speed the packing of the bottom fold.
- 2—give tension on the apex.
- 3—hold the canopy folds in position.
- 4—keep the lines in their holders.

3121. How many gores should be folded at one time during the packing of a parachute?

- 1—One.
- 2—Two.
- 3—Three.
- 4—Four.

3122. To facilitate suspension line pullout, the lines should be stowed so that they extend through the retainer loop

- 1—only to the edge of loop.
- 2—not more than 1/2 inch.
- 3—according to manufacturer's instructions.
- 4—at least 2 inches.

3123. How is a back-type parachute pack sealed?

- 1—By tying the pin farthest from the grip, with low tensile strength thread, and attaching a lead seal.
- 2—By tying the top and bottom pins with low tensile strength thread, and attaching a lead seal.
- 3—By tying the pin nearest the grip with low tensile strength thread, and attaching a lead seal.
- 4—By tying either the top or center pin with low tensile strength thread, and attaching a lead seal.

3124. What is the lead seal identifying mark used for?

- 1—To seal a parachute pack.
- 2—To identify the parachute manufacturer.
- 3—To show if the pack has been opened.
- 4—To identify a certificated parachute rigger.

3125.

(1) After packing a parachute intended for emergency use, a certificated parachute rigger is required to seal each pack in accordance with the manufacturer's recommendations for that type of parachute.

(2) The identifying mark (seal symbol) used to seal a pack is issued by the manufacturer of the specific parachute.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3126. After packing a parachute, how does a certificated parachute rigger seal each pack?

- 1—The safety tie is sealed with the rigger's individual seal in accordance with the manufacturer's recommendations.
- 2—The safety tie is sealed with the certificated parachute loft seal in accordance with the manufacturer's recommendations.
- 3—The safety tie is sealed with the seal symbol issued by the parachute manufacturer.
- 4—The safety tie is sealed by installing the pack elastics in their respective positions.

3127.

(1) When sealing a pack, the lead seal should be positioned over the safety-tie threads and securely compressed.

(2) Manufacturers' instructions require the replacement of all harness tacking each time a parachute is packed.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3128. After closing the pack, the ripcord is inserted and the ends of the pack are dressed out by

- 1—hand.
- 2—a packing paddle.
- 3—a packing hook.
- 4—the tension hook.

3129. At what point in the rigging of a parachute should the ripcord grip pocket be secured to the harness?

- 1—Just before the canopy is packed.
- 2—After the canopy is packed.
- 3—Before the pack is attached to the harness.
- 4—Just before the suspension lines are stowed.

3130. After inserting the ripcord pins in the locking cones on a back-type parachute, the pack is sealed in accordance with the manufacturer's instructions using low tensile strength thread to tie the

- 1—top pin.
- 2—center pin.
- 3—last pin.
- 4—bottom and top pins.

3131. The canopy vent performs how many of the following functions?

- (1) Relieves internal pressure during opening.
- (2) Helps dampen oscillation during descent.
- (3) Provides a positive means of horizontal control during descent.

- 1—One.
- 2—Two.
- 3—Three.
- 4—None.

3132. What happens to the pilot chute of a square canopy that has fully opened?

- 1—It remains inflated.
- 2—It detaches from the canopy.
- 3—It deflates and could rest on the canopy.
- 4—It drops through the vent and hangs inside the canopy.

3133. A deployment bag is used

- 1—to protect the canopy after canopy deployment.
- 2—to delay canopy filling until suspension lines are deployed.
- 3—for static line deployment only.
- 4—to allow the canopy to fill before the suspension lines are deployed.

3134. Possible rupture of the canopy during opening shock load could be reduced by

- 1—increasing the porosity.
- 2—installing a pilot chute.
- 3—installing a drogue parachute.
- 4—bias construction of the canopy.

3135. The purpose of stabilizer panels in a square parachute is to

- 1—stabilize canopy surge during deployment.
- 2—reduce initial deployment by reefing the canopy.
- 3—stabilize sideways airflow through the canopy.
- 4—reduce wingtip vortices.

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- 4—bias construction of the canopy.

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- 1—stabilize canopy surge during deployment.
- 2—reduce initial deployment by reefing the canopy.
- 3—stabilize sideways airflow through the canopy.
- 4—reduce wingtip vortices.

3147. Data necessary for the issuance of an Airworthiness Directive shall be submitted by

- 1—the FAA Engineering and Manufacturing Branch.
- 2—parachute lofts.
- 3—the parachute manufacturer.
- 4—senior and master parachute riggers.

3148. Select the true statement concerning the opening of a parachute.

- 1—The pilot chute opens the container when the ripcord is pulled.
- 2—Pack opening elastics or spring bands pull the pilot chute from within the pack.
- 3—The pull required to remove the ripcord pins may not exceed 22 pounds.
- 4—The pull required to remove the ripcord pins from their respective cones is equal to the total pull of all pack opening elastics or spring bands.

3149. What is meant by the phrase “opening shock”?

- 1—The force exerted on the pilot chute when it ejects from the pack.
- 2—The force exerted on the canopy after full inflation.
- 3—The force applied as the suspension lines pay out of their retainers.
- 4—The force exerted on the jumper when the canopy inflates.

3150. A line-over is the term used when one or more suspension lines

- 1—are broken.
- 2—are twisted.
- 3—pass over the inflated canopy.
- 4—have dips.

3151. The leading edge of a square parachute is open in order to

- 1—reduce forward motion.
- 2—increase forward motion.
- 3—maintain directional control.
- 4—maintain the shape of the canopy.

3152. What type knot is generally used to fasten the pilot chute to the bridle line?

- 1—Half-hitch.
- 2—Bowline.
- 3—Clovehitch.
- 4—Fisherman's.

3153. Which of the following is the definition of “gore” as it applies to a parachute canopy?

- 1—A gore is a portion of fabric bounded by any two suspension lines, the apex, and the skirt hem.
- 2—A gore is that portion of double thickness fabric which is used to reinforce the canopy vent area (apex).
- 3—A gore is a portion of fabric cut on a bias with the warp of the fabric running at a 45 degree angle to the centerline of the section.
- 4—A gore is that portion of double thickness fabric which is used to reinforce the canopy skirt hem.

3154. Which of the following statements is correct in reference to the construction of a gore as used in a bias-constructed type parachute canopy?

- 1—Each gore is composed of sections which are cut parallel to the centerline of the gore.
- 2—Each gore is a single piece of fabric cut perpendicular to the centerline of the gore.
- 3—Each gore is composed of sections cut at a 45 degree angle to the centerline of the gore.
- 4—Each gore is a single piece of fabric cut at a 45 degree angle to the centerline of the gore.

3155. Which of the following statements most accurately describes the radial seam used in a bias-constructed canopy?

- 1—The seam has two rows of stitching on each side of the channel that encloses the suspension line.
- 2—The seam is sewed with two rows of zigzag stitching.
- 3—The seam has a single row of stitching on each side of the channel that encloses the suspension line.
- 4—The seam is sewed with a single row of zigzag stitching.

3156. A rubber vent collar ring is capable of

- 1—holding the vent closed, especially during opening shock.
- 2—stretching to the diameter of the vent hem.
- 3—stretching to the skirt hem.
- 4—controlling horizontal direction while descending.

3157. Select the term which is applicable to the material threads indicated by “A” in the drawing of Figure 2.

- 1—Warp.
- 2—Fill.
- 3—Selvage.
- 4—Count.

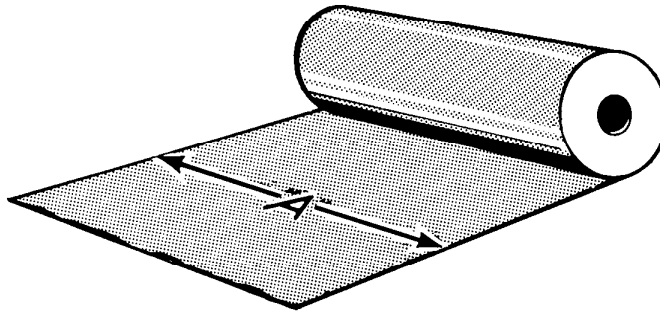


Figure 2

3158. "Ripstop" is a term commonly used to describe

- 1—webbing material.
- 2—canopy material.
- 3—canvas material.
- 4—sewing machine stitching.

3159. Why is the slack left in the block constructed canopy between the attachment points of the suspension lines?

- 1—To facilitate packing.
- 2—To reduce opening shock loads.
- 3—To reduce strain on canopy during opening shock.
- 4—To prevent breakage of suspension lines during opening shock.

3160. A bias-cut canopy is one in which

- 1—all seams are biased.
- 2—the canopy hem and vent hem are parallel to the selvage edge of the material in the gore.
- 3—the threads in the panel segments are 45 degrees to the centerline of the gore.
- 4—the lines are attached to the harness on the bias.

3161. "Porosity," as used in parachute terminology, is expressed in terms of the

- 1—rate of airflow through the canopy.
- 2—direction of cloth weave.
- 3—rate of descent.
- 4—weight of cloth per square yard.

3162. What is one advantage of bias construction of parachute canopies?

- 1—Provides minimum strength and elasticity.
- 2—Lessens the weight of the parachute.
- 3—Decreases the bulk of the parachute.
- 4—Provides additional strength.

3163. Which of the stitchings in Figure 3 illustrates a correctly folded and stitched seam? (Shown in cross section.)

- 1—A.
- 2—B.
- 3—C.
- 4—D.

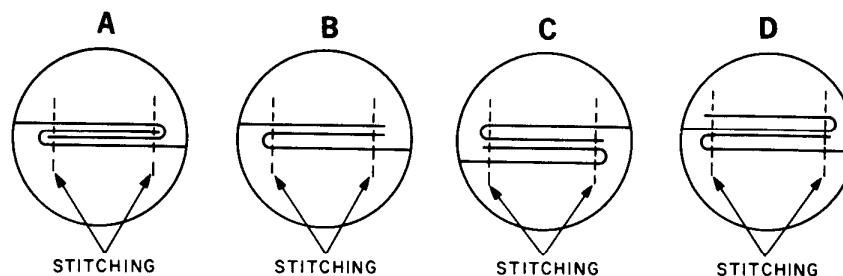


Figure 3

3164. Nylon tubular webbing is commonly used in which of the following parachute parts?

- 1—Ripcord housing.
- 2—Suspension line stowage bands.
- 3—Pilot chute bridle line.
- 4—Harness straps.

3165. A canopy constructed so that the warp and filler threads of the cloth run 45 degrees to the centerline of the gore is called

- 1—angular construction.
- 2—radial construction.
- 3—diagonal construction.
- 4—bias construction.

3166. Of several characteristics of canopy material, which should be considered the most important based on safety considerations?

- 1—Durability.
- 2—Tensile strength.
- 3—Elasticity.
- 4—Permeability.

3167. Traditionally in square parachutes, the warp yarns run

- 1—spanwise.
- 2—chordwise.
- 3—on the bias.
- 4—clockwise.

3168. A ram-air canopy

- (1) has an upper surface, lower surface, airfoil shaped ribs, and a rectangular platform.
- (2) may be packed and deployed similar to a conventional round canopy.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3169. Which of the following identifies the major components of a parachute?

- 1—Pilot chute, canopy, suspension lines, lift webs, and risers.
- 2—Panels, upper lateral band, lower lateral band, suspension lines, and risers.
- 3—Harness, canopy, container or pack, pilot chute, ripcord, and suspension lines.
- 4—Upper lateral band, lower lateral band, vent collar, canopy, and suspension lines.

3170. Which specification is applicable to parachutes?

- 1—TSO-C23b.
- 2—TSO-C83a.
- 3—TSO-C22a.
- 4—None of the above.

3171.

- (1) Each parachute outfit shall be provided with at least an inner pocket for keeping a record card.
- (2) The inner pocket shall be located in the center of the packed container tray or frame.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3172. What precaution must be observed when replacing a broken or missing eye on a container?

- 1—Replace the eye and the pack opening band hook.
- 2—Sew the eye to a reinforced area of the container.
- 3—Replace the eyes adjacent to the broken or missing one.
- 4—Locate the eyes near the container binding or a seam.

3173. How is the outside covering of the parachute container provided with the necessary elasticity?

- 1—By constructing it of nylon fabric.
- 2—By joining all seams using a zigzag stitch.
- 3—By cutting the covering in one piece on the bias.
- 4—By a combination of all the above.

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- 2—Suspension line stowage bands.
- 3—Pilot chute bridle line.
- 4—Harness straps.

3165. A canopy constructed so that the warp and filler threads of the cloth run 45 degrees to the centerline of the gore is called

- 1—angular construction.
- 2—radial construction.
- 3—diagonal construction.
- 4—bias construction.

3166. Of several characteristics of canopy material, which should be considered the most important based on safety considerations?

- 1—Durability.
- 2—Tensile strength.
- 3—Elasticity.
- 4—Permeability.

3167. Traditionally in square parachutes, the warp yarns run

- 1—spanwise.
- 2—chordwise.
- 3—on the bias.
- 4—clockwise.

3168. A ram-air canopy

- (1) has an upper surface, lower surface, airfoil shaped ribs, and a rectangular platform.
- (2) may be packed and deployed similar to a conventional round canopy.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3169. Which of the following identifies the major components of a parachute?

- 1—Pilot chute, canopy, suspension lines, lift webs, and risers.
- 2—Panels, upper lateral band, lower lateral band, suspension lines, and risers.
- 3—Harness, canopy, container or pack, pilot chute, ripcord, and suspension lines.
- 4—Upper lateral band, lower lateral band, vent collar, canopy, and suspension lines.

3170. Which specification is applicable to parachutes?

- 1—TSO-C23b.
- 2—TSO-C83a.
- 3—TSO-C22a.
- 4—None of the above.

3171.

- (1) Each parachute outfit shall be provided with at least an inner pocket for keeping a record card.
- (2) The inner pocket shall be located in the center of the packed container tray or frame.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3172. What precaution must be observed when replacing a broken or missing eye on a container?

- 1—Replace the eye and the pack opening band hook.
- 2—Sew the eye to a reinforced area of the container.
- 3—Replace the eyes adjacent to the broken or missing one.
- 4—Locate the eyes near the container binding or a seam.

3173. How is the outside covering of the parachute container provided with the necessary elasticity?

- 1—By constructing it of nylon fabric.
- 2—By joining all seams using a zigzag stitch.
- 3—By cutting the covering in one piece on the bias.
- 4—By a combination of all the above.

3185. On four-link canopies, the suspension lines are secured to the connector links using a

- 1—clovehitch and a half-hitch.
- 2—bowline and a clovehitch.
- 3—bowline and a half-hitch.
- 4—clovehitch and a surgeon's knot.

3186. Suspension lines are attached directly to the

- 1—harness web.
- 2—container.
- 3—riser links.
- 4—vent hem.

3187. Where are the suspension lines attached to the gores to prevent the canopy from slipping along the lines?

- 1—Along the radial seams.
- 2—Along the diagonal seams.
- 3—Down the center of each gore.
- 4—Along both the radial and diagonal seams.

3188. Select the knot in Figure 4 which shows a correct method for attaching suspension lines on a four-link canopy to a connector link. (Knots are shown expanded for clarity.)

- 1—A.
- 2—B.
- 3—C.
- 4—D.

3189. Why is zigzag stitching used to complete the attachment of suspension lines to the riser links?

- 1—It is stronger than other types of stitching.
- 2—It does not require special equipment to produce.
- 3—It allows for more stitches per linear inch than other types of stitching.
- 4—It allows elongation of the suspension line without overstressing the thread.

3190. The suspension or load-line channel is formed by the

- 1—radial seam stitching.
- 2—lateral seam stitching.
- 3—diagonal seam stitching.
- 4—bias construction of the canopy.

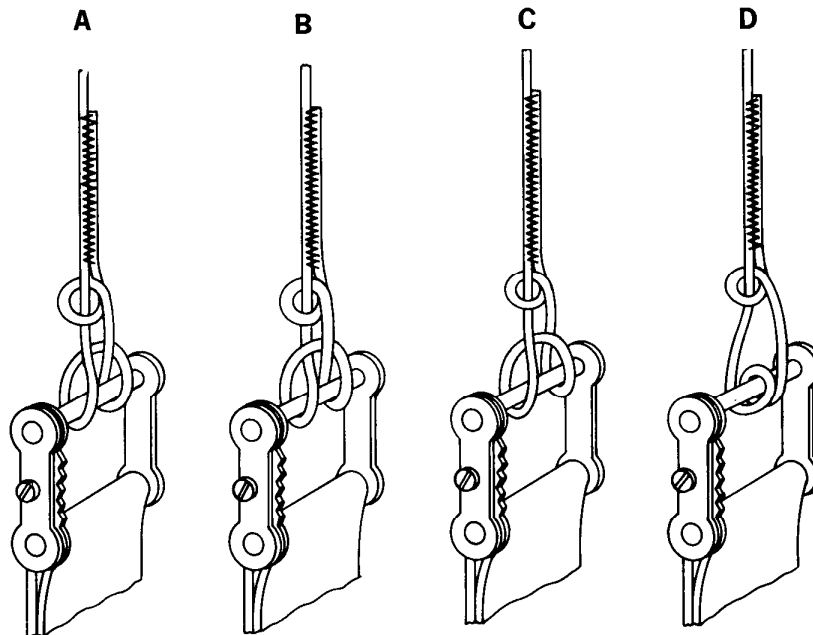


Figure 4

3191. Select the drawing from Figure 5 that shows the correct rotation of the suspension lines on the connector links of a 24-foot, four-link canopy.

- 1—A.
- 2—B.
- 3—C.
- 4—D.

3192. Who may install Capewell fasteners (for a main back pack) on a single harness dual parachute pack?

- 1—Master parachute rigger.
- 2—Certificated aircraft repair station.
- 3—Military rated parachute rigger.
- 4—Person using the parachute for intentional jumping.

3193. In the event that only one connector snap is attached to the harness D-ring, what prevents the canopy from collapsing?

- 1—The V-ring.
- 2—The connector links.
- 3—The suspension lines.
- 4—The cross connector strap.

3194. What prevents an auxiliary pack canopy from collapsing if one connector snap is not secured or pulls out of the harness “D-ring” when the canopy is deployed?

- 1—The cross connector strap.
- 2—The container frame.
- 3—The connector links.
- 4—The breast strap.

3195. To meet Technical Standard Order requirements for FAA approval, all fittings on a parachute must be

- 1—able to withstand their full-rated load without yielding.
- 2—made of corrosion-resistant steel.
- 3—smooth to avoid damaging the canopy.
- 4—plated to resist corrosion.

3196. Which statement describes the use, description, and type of material of grommets used in parachutes?

- 1—Used as reinforcement around holes for mounting clamp-type fasteners.
- 2—Used as patches for small holes, can be round, square or oblong, and are made of fabric.
- 3—Used as reinforcement around holes, are round, and are made of metal.
- 4—Used between the button and stud of snap fasteners, are round, and are made of metal.

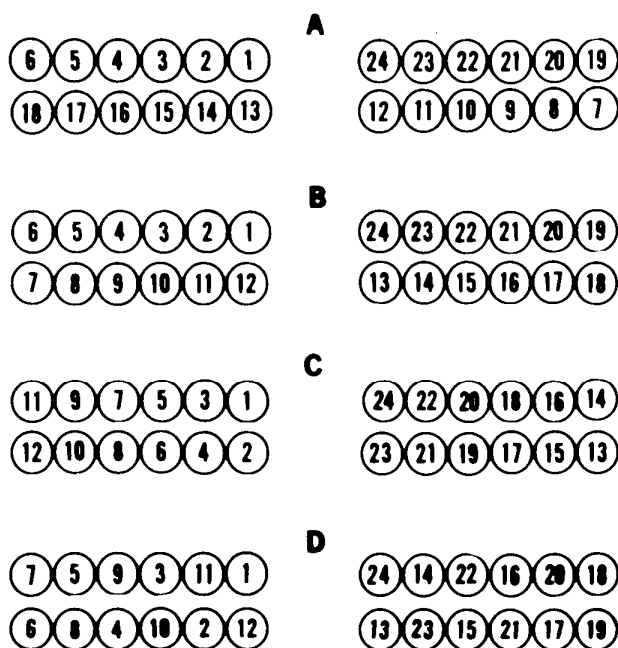


Figure 5

3191. Select the drawing from Figure 5 that shows the correct rotation of the suspension lines on the connector links of a 24-foot, four-link canopy.

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- 2—B.
- 3—C.
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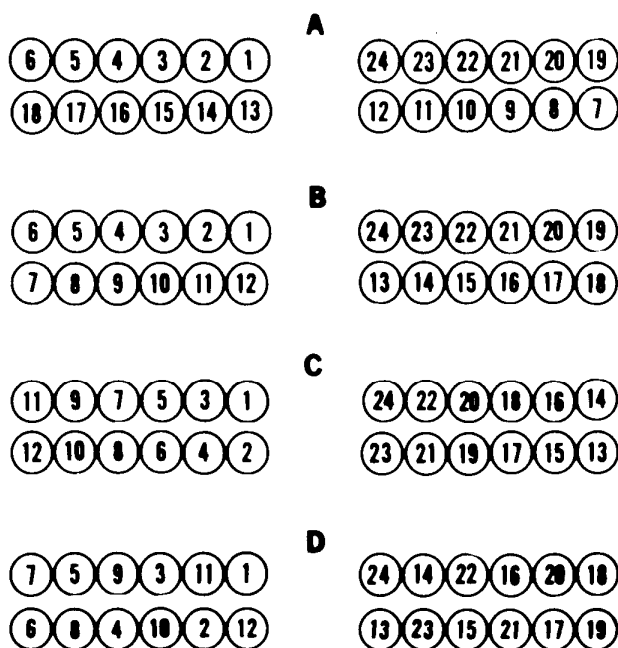


Figure 5

3207. The term “backpack or chestpack” refers to the parachute assembly, less the

- 1—reserve parachute.
- 2—harness.
- 3—container.
- 4—main parachute when referring to a dual assembly used for intentional jumping.

3208. Dacron control lines are desirable for ram-air canopies because

- 1—they stretch less than kevlar lines.
- 2—they are easier to install.
- 3—they resist guide ring abrasions better than kevlar lines.
- 4—they are manufactured in more colors.

3209.

- (1) Filler yarns of parachute canopy materials run crosswise of the cloth as it comes from the loom.
- (2) When applying a patch, the patch material filler yarns must be matched with those of the canopy.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3210.

- (1) Dyeing of a canopy is a minor repair.
- (2) Replacement of a suspension line is a minor repair.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
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3211. Any repairs to a parachute must be done in accordance with procedures

- 1—approved by the FAA Administrator or the manufacturer of the parachute.
- 2—contained in TSO-C23b.
- 3—contained in FAR Part 149.
- 4—contained in FAR Part 65.

3212. What do the Federal Aviation Regulations consider to be the service life of a parachute?

- 1—As long as it is in condition for safe operation.
- 2—4 years.
- 3—5 years.
- 4—7 years.

3213. Which defect in a canopy would most likely require a minor repair?

- 1—Missing picks.
- 2—Floats or skips.
- 3—Slugs or slubs.
- 4—Pinholes.

3214. Strength is given to a patch by

- 1—securing it to a seam.
- 2—anchoring it to a suspension line.
- 3—applying a filler patch in the trimmed hole.
- 4—doing all of the above.

3215. What is the reason for matching the weave of the patch material with that of the canopy being repaired?

- 1—To provide a more pleasing appearance.
- 2—So that the permeability of the canopy is unchanged.
- 3—To assure that the patch elasticity is the same as the canopy material.
- 4—To prevent causing any difficulty in folding the canopy during packing procedure.

3216.

- (1) Dyeing of a canopy is an alteration.
- (2) Replacement of a suspension line is a minor repair.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3217. If a tear continued across a radial seam of an auxiliary pack canopy, who is authorized to make the repair?

- 1—A master parachute rigger.
- 2—A senior parachute rigger with an appropriate rating.
- 3—The user of the parachute.
- 4—All of the above.

3218. A persistent turn of a ram-air canopy

- 1—can be caused by improper packing.
- 2—may be the result of replacing a line of improper length.
- 3—is caused by a short steering line.
- 4—is usually caused by user technique.

3219. When handstitching prior to machine sewing, which stitch may be used to position and secure parts in place?

- 1—Basting stitch.
- 2—Baseball stitch.
- 3—Overthrow stitch.
- 4—Buttonhole stitch.

3220. Which stitching shown in Figure 7 illustrates a correctly folded and stitched radial seam? (Shown in cross section.)

- 1—A.
- 2—B.
- 3—C.
- 4—D.

3221. If evidence of “yarn slippage” is found during the inspection of a parachute canopy, what procedure should be followed?

- 1—Patch the affected area.
- 2—Remove the affected area and determine the degree of deterioration by pull testing in a tensile strength tester.
- 3—To determine the extent of the defect, further separate the dislodged threads by pulling the affected material between the fingers of both hands.
- 4—This minor defect does not require repair.

3222. The raw edges of a canopy patch are turned under a minimum of

- 1—3/8 inch.
- 2—1/2 inch.
- 3—3/4 inch.
- 4—1 inch.

3223. Warp threads are those that run

- 1—the length of a seam.
- 2—the length of a bolt of material.
- 3—across the width of a bolt of material.
- 4—diagonally on herringbone reinforcement tape.

3224. When repairing a broken stitch in a canopy seam, what action should be taken?

- 1—Overstitch for at least 1 inch on each end.
- 2—Reinforce the seam by applying a patch.
- 3—Sew back and forth across the ends of the broke stitch.
- 4—Anchor the ends of the broken thread using fabri cement.

3225. Which statement relative to patching a parachute canopy is true?

- 1—The inside patch should be 1 inch larger than the hole.
- 2—The outside patch should be 2 inches larger than the hole.
- 3—The inside patch should be 2 inches larger than the hole.
- 4—The outside patch method should be used first.

3226. When replacing a panel in a parachute canopy, which of the following applies?

- 1—Separate the stitches around the panel by force.
- 2—Open the radial seams 1 inch beyond the end of the panel.
- 3—Completely remove the two suspension lines bordering the panel.
- 4—The canopy may have to be stretched.

3227. Ram-air or square parachute panel and rib

- 1—replacements should be complete.
- 2—seams should be trimmed and new panel sewn over the old seams.
- 3—repairs are similar to those accomplished on round canopies.
- 4—replacements may be accomplished by any parachute rigger.

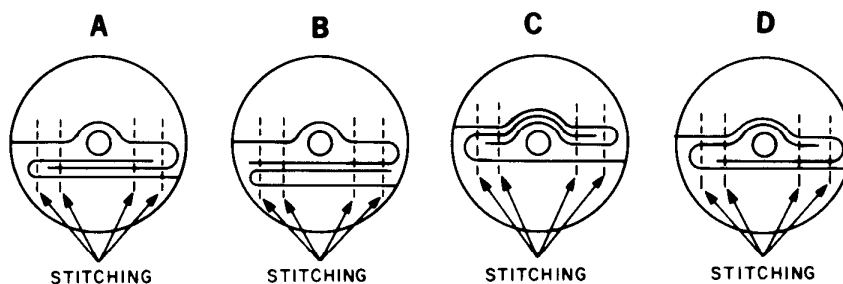


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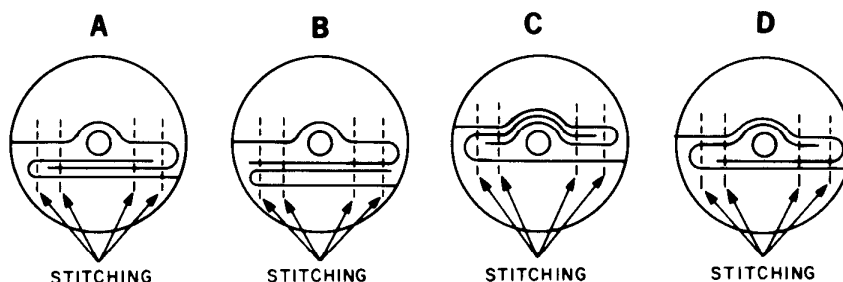


Figure 7

3234. Identify the knots in the order shown in Figure 9.

- 1—(A) square; (B) clovehitch; (C) lark's head; and (D) bowline.
- 2—(A) surgeon's; (B) lark's head; (C) clovehitch; and (D) bowline.
- 3—(A) surgeon's; (B) bowline; (C) lark's head; and (D) clovehitch.
- 4—(A) square; (B) bowline; (C) clovehitch; and (D) lark's head.

3235. A rough locking cone surface sometimes can be field repaired by

- 1—rotating 180 degrees and reinstalling.
- 2—scraping the cone with a knife.
- 3—grinding the cone using an emery wheel.
- 4—dressing the cone with No. 2 sandpaper.

3236. When replacing a torn out pack grommet, excess thickness in the patched area may cause

- 1—improper deployment of the pilot chute.
- 2—additional damage to the material at the grommet area.
- 3—more pressure on the ripcord pin.
- 4—the cone to protrude too far through the grommet.

3237. When repairing a broken stitch in a canopy seam, what action should be taken?

- 1—Anchor the ends of the broken thread using fabric cement.
- 2—Sew back and forth across the ends of the broken stitch.
- 3—Reinforce the seam by applying a patch.
- 4—Overstitch by at least 1 inch.

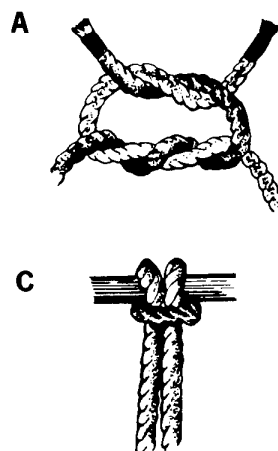


Figure 9

3238. Figure 10 is a cross section of a series of lockstitches sewn by machine. Which action will aid in correcting the fault shown?

- 1—Decrease bobbin thread tension and increase needle thread tension.
- 2—Increase bobbin thread tension and decrease needle thread tension.
- 3—Increase presser foot pressure and decrease feed dog pressure.
- 4—Decrease stitch length and increase needle thread tension.

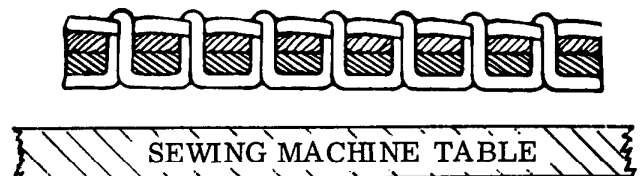


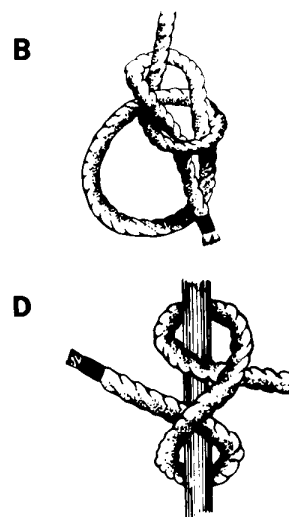
Figure 10

3239. Which of the seams illustrated in Figure 11 is a French fell seam?

- 1—A.
- 2—B.
- 3—C.
- 4—D.

3240. Ripstop tape may be used for which of the following purposes?

- 1—To attach the ripcord pocket to the harness.
- 2—To attach the excess length of harness riser strap to the container.
- 3—To repair minor defects in the canopy.
- 4—To make major repairs to canvas containers.



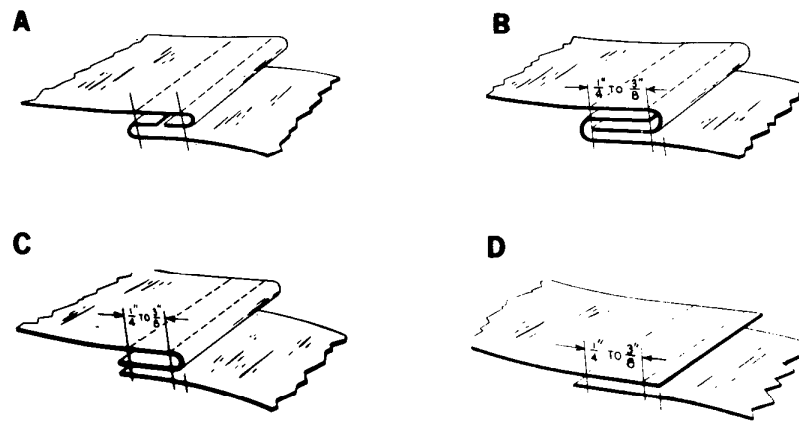


Figure 11

3241. When starting to sew a seam with a lockstitch sewing machine, the operator should hold

- 1—both threads for the first three or four stitches.
- 2—the lower thread for the first two stitches.
- 3—the bobbin thread for the first four stitches.
- 4—the upper thread for the first two stitches.

3242. What size thread is used to sew nylon canopy radial seams when making a repair?

- 1—One size larger than original.
- 2—Size B.
- 3—One size smaller than original.
- 4—Size E.

3243. Which statement is correct concerning sewing and stitching as applied to parachute repair?

- 1—Seams joined by zigzag stitching are capable of greater joint elongation without creating excessive tensile stress of the thread itself.
- 2—All thread must be coated with beeswax prior to use.
- 3—Use 5-cord linen thread for all hand sewing.
- 4—Use 6-cord linen thread for all machine sewing.

3244. What determines the proper size sewing machine needle to use in repairing a parachute?

- 1—The speed of the machine.
- 2—The machine being used.
- 3—The size of hole in the feed dog.
- 4—The thread size and material being used.

3245. What two types of stitching are normally used in the manufacture and maintenance of parachutes?

- 1—Lockstitch and chainstitch.
- 2—Chainstitch and handstitch.
- 3—Chainstitch and blindstitch.
- 4—Lockstitch and handstitch.

3246. Which of the seams illustrated in Figure 12 is an English fell seam? (Cross section shown.)

- 1—A.
- 2—B.
- 3—C.
- 4—D.

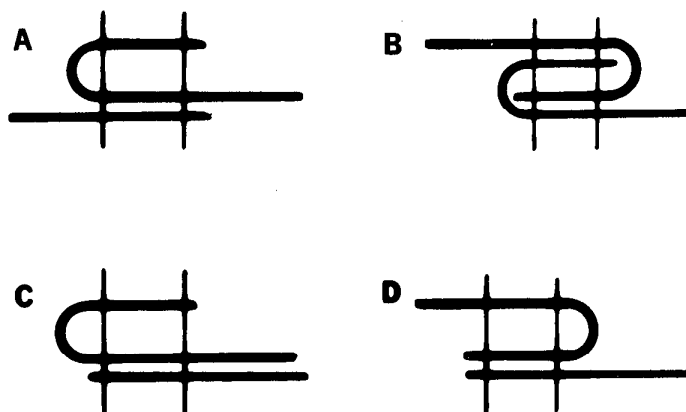


Figure 12

3247. Which of the following has the least effect on the overall strength of a sewn seam?

- 1—Type of stitch and type of thread.
- 2—Stitching pattern and number of stitches.
- 3—Type of seam used and seam construction.
- 4—Moisture content of the fabric at the time of sewing.

3248. Why should the elasticity of a seam or stitching be slightly greater than that of the fabric it joins?

- 1—To minimize abrasion and wear of the thread from contact with other parts of the parachute assembly.
- 2—To prevent snagging of the thread used in constructing the seam.
- 3—So that the material will support its share of the expected load.
- 4—To assure balanced seam construction that has the neatness in appearance to match adjacent seams.

3249. Which type of machine stitch is used most frequently in the repair and maintenance of parachutes?

- 1—Lockstitch.
- 2—Chainstitch.
- 3—Overedge stitch.
- 4—Darning stitch.

3250. The elasticity of a properly constructed seam or stitching depends upon which of the following?

- 1—Thread strength and elasticity.
- 2—Thread tension and stitch type.
- 3—Seam type and thread elasticity.
- 4—Stitch type and thread elasticity.

3251.

- (1) The elasticity of a seam or stitching should be slightly less than the material which it joins.
- (2) The elasticity of a seam or stitching depends upon the stitch type and the thread elasticity.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3252. Identify the type of stitch formed when two needle threads pass through the material in the same perforation from opposite directions without interlacing or interlooping.

- 1—Double locked stitch.
- 2—Lockstitch.
- 3—Chainstitch.
- 4—Running stitch.

3253. Which type of stitch should be used for sewing a tear in a parachute container in preparation for patching?

- 1—Chainstitch.
- 2—Backstitch.
- 3—Baseball stitch.
- 4—Darning stitch.

3254. How many rows of stitches extend the entire length of the radial seam on a continuous line canopy?

- 1—Two.
- 2—Three.
- 3—Four.
- 4—Six.

3255. What affects the strength of a sewed seam?

- 1—Thread tension and stitches per inch.
- 2—Type of stitch and thread strength.
- 3—Seam efficiency of the material and the type of seam.
- 4—All of the above.

3256. Which component of the sewing machine used for parachute repair work prevents the thread from becoming split by the needle as it travels through the material?

- 1—The sewing hook.
- 2—The needle bar.
- 3—The thread takeup lever.
- 4—The needle thread controller spring.

3257. A properly adjusted sewing machine will produce a stitch that locks

- 1—in the center of the uppermost piece of material.
- 2—on the top surface of the materials being joined.
- 3—on the bottom surface of the materials being joined.
- 4—in the center of the thickness of the materials being joined.

3258.

- (1) A sewing machine will not feed properly if the feed dog is set too low.
- (2) Too little pressure on the presser foot of a sewing machine will result in staggered stitches.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3259. If the bobbin is threaded incorrectly, what is the most likely malfunction to occur while operating a sewing machine?

- 1—Staggered stitches.
- 2—Skipped stitches.
- 3—Breakage of the lower thread.
- 4—Breakage of the upper thread.

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- 4—The needle thread controller spring.

3257. A properly adjusted sewing machine will produce a stitch that locks

- 1—in the center of the uppermost piece of material.
- 2—on the top surface of the materials being joined.
- 3—on the bottom surface of the materials being joined.
- 4—in the center of the thickness of the materials being joined.

3258.

- (1) A sewing machine will not feed properly if the feed dog is set too low.
- (2) Too little pressure on the presser foot of a sewing machine will result in staggered stitches.

Regarding the above statements, which of the following is true?

- 1—Only No. 1 is true.
- 2—Only No. 2 is true.
- 3—Both No. 1 and No. 2 are true.
- 4—Neither No. 1 nor No. 2 is true.

3259. If the bobbin is threaded incorrectly, what is the most likely malfunction to occur while operating a sewing machine?

- 1—Staggered stitches.
- 2—Skipped stitches.
- 3—Breakage of the lower thread.
- 4—Breakage of the upper thread.

3269. Which hazard is associated with chrome plating of parachute hardware?

- 1—Hydrogen embrittlement of the metal parts.
- 2—Slippage of the metal parts due to increased coefficient of friction.
- 3—Weakening of the hardware due to the annealing effect of the plating process.
- 4—None of the above.

3270. When replacing a damaged ripcord with a serviceable one, which of the following requirements must be met?

- 1—Functionally test the parachute for proper operation.
- 2—Check the ripcord for proper length.
- 3—Replace the ripcord housing with a serviceable assembly.
- 4—None of the above.

3271. A worn locking cone must be

- 1—smoothed by grinding the cone using an emery wheel.
- 2—replaced with a new cone.
- 3—smoothed by rubbing the cone with emery cloth.
- 4—contoured by filing the cone.

3272. Removal of a grommet is accomplished principally by which operation?

- 1—Filing.
- 2—Prying.
- 3—Crimping.
- 4—Drilling.

3273. Replating a load-carrying parachute fitting would be considered a

- 1—major alteration.
- 2—minor alteration.
- 3—major repair.
- 4—minor repair.

3274. When necessary to clean a large area of a canopy to remove stains and dirt, which of the following cleaning methods should be used?

- 1—Submerge the canopy in a cleaning mixture and rub the material together until the stain is removed.
- 2—Scrub the stained area using a soft bristle brush saturated with clean, fresh water.
- 3—Machine wash the entire canopy.
- 4—Wash in warm water with a mild soap. Soak and agitate until dirt is removed and rinse several times.

3275. Which of the following methods should be used to dry a parachute canopy that has been rinsed or soaked in clear water?

- 1—Dry the canopy in an electric dryer.
- 2—Wring the canopy thoroughly and hang it to dry.
- 3—Hang the canopy in a drying tower and allow it to drip dry.
- 4—Spread the canopy in the Sun to shorten the drying time.

3276. Which method is commonly used to remove grease and oil stains from parachute canopies?

- 1—Apply an approved solvent.
- 2—Wash with castile soap and water.
- 3—Cut out the stained area and apply a patch.
- 4—Replace the entire panel that contains the stain.

3277. Which method is commonly used to remove mildew stain from a parachute canopy?

- 1—Wash with naphtha.
- 2—Wash with mild soap and water.
- 3—Cut out the stained area and apply a patch.
- 4—Replace the entire panel that contains the stain.

3278. Select the correct statement concerning the cleaning of nylon parachute harness which has become soiled due to handling.

- 1—Wash with a 2 percent solution of phenol (carbolic acid).
- 2—Use warm water.
- 3—Clean the affected areas with a petroleum-base solvent.
- 4—Dip a clean cloth into a warm solution of hydrogen peroxide and rub the affected areas lightly.

3279. How can you detect the presence of acid on parachute fabrics?

- 1—By sight.
- 2—By smelling the stained area.
- 3—By the use of litmus paper.
- 4—By drop testing the parachute.

3280. What is normally used to remove blood stains from parachutes?

- 1—Ammonia.
- 2—Dry cleaning solvent.
- 3—Naphtha.
- 4—Cold water.

3281. Which statement applies to the care of a nylon parachute that has fallen into a lake or river of fresh water?

- 1—Hang until thoroughly dried and repack.
- 2—Rinse in a mild soap and water solution to remove dirt and hang in the Sun to dry.
- 3—Twist the fabric parts gently by hand to remove excess water and hang until dry.
- 4—Rinse in clean fresh water, hang in tower, and allow to dry.

3282. What is used to neutralize the destructive effects of battery acid on parachutes?

- 1—Ammonia.
- 2—Acetone.
- 3—Warm water.
- 4—Dry cleaning solvent.

3269. Which hazard is associated with chrome plating of parachute hardware?

- 1—Hydrogen embrittlement of the metal parts.
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- 3—Warm water.
- 4—Dry cleaning solvent.

APPENDIX 2

REFERENCES

The abbreviations listed below are used to identify the reference associated with each test question listed in Appendix 1.

AC — Advisory Circular
FAR — Federal Aviation Regulations
PPM — Poynter Parachute Manual
TSO — Technical Standard Order

<i>Item</i>	<i>Reference</i>	<i>Item</i>	<i>Reference</i>	<i>Item</i>	<i>Reference</i>	<i>Item</i>	<i>Reference</i>
3001.	FAR 65	3023.	FAR 65	3045.	FAR 65	3067.	FAR 65
3002.	FAR 65	3024.	FAR 65	3046.	FAR 65	3068.	FAR 65
3003.	FAR 65	3025.	FAR 65	3047.	FAR 65	3069.	FAR 65
3004.	FAR 65	3026.	FAR 1	3048.	FAR 65	3070.	FAR 65
3005.	FAR 65	3027.	FAR 65	3049.	FAR 65	3071.	FAR 65
3006.	FAR 65	3028.	FAR 65	3050.	FAR 65	3072.	FAR 65
3007.	FAR 65	3029.	FAR 65	3051.	FAR 65	3073.	FAR 65
3008.	FAR 65	3030.	FAR 65	3052.	FAR 65	3074.	FAR 65
3009.	FAR 65	3031.	FAR 65	3053.	FAR 65	3075.	FAR 65
3010.	FAR 65	3032.	FAR 65	3054.	FAR 65	3076.	FAR 105
3011.	FAR 65	3033.	FAR 65	3055.	FAR 65	3077.	FAR 65
3012.	FAR 65	3034.	FAR 65	3056.	FAR 65	3078.	PPM
3013.	FAR 65	3035.	FAR 65	3057.	FAR 65	3079.	FAR 91
3014.	FAR 65	3036.	FAR 65	3058.	FAR 65	3080.	PPM
3015.	FAR 65	3037.	FAR 65	3059.	FAR 65	3081.	PPM
3016.	FAR 65	3038.	FAR 65	3060.	FAR 65	3082.	PPM
3017.	FAR 65	3039.	FAR 149	3061.	FAR 65	3083.	PPM
3018.	FAR 65	3040.	FAR 65	3062.	PPM	3084.	PPM
3019.	FAR 65	3041.	AC 105-2B	3063.	FAR 65	3085.	PPM
3020.	FAR 65	3042.	FAR 65	3064.	FAR 65	3086.	PPM
3021.	FAR 65	3043.	FAR 65	3065.	FAR 65	3087.	PPM
3022.	FAR 65	3044.	FAR 65	3066.	FAR 65	3088.	PPM

Item Reference

3089. PPM

3090. PPM

3091. FAR 65

3092. PPM

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3097. FAR 65

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3141. FAR 65

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3146. FAR 21

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3147. FAR 21

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